the first and second conductive surfaces, said pressure causing a bond between the first and second conductive surfaces to be formed via the anisotropic material;

means for curing the anisotropic material; and

a meter configured to measure an electrical characteristic of the bond and generate a feedback signal corresponding to the electrical characteristic, said feedback signal being used to selectively adjust said compressor.

REMARKS

In the drawings, the Examiner has indicated that Figures 1-4 should be designated by a legend such as "—Prior Art—". Applicant has amended the drawings to comply with this request. Further, the Examiner objected to the specification of the application because certain reference numerals in the specification were not set forth in the drawings. Applicant has also amended the drawings to include the identified reference numerals.

Claims 1-16 are currently pending in the application. Claims 1-16 were rejected under 35 U.S.C. §112, ¶2, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. However, the Examiner has indicated that that claims 1-8 and 14-16 would be allowable is rewritten to overcome the §112, ¶2 rejections, and Applicant thanks the Examiner for this indication. Applicant has amended the application to correct each of the Examiner's objections under §112, ¶2, except that specified by the Examiner in paragraph 10 on page 4 of the Office Action. With respect to the Examiner's objection in paragraph 10, Applicant submits that the use of "holding/clamping" in claims 3, 12 and 14 is as an adjective used to identify a particular pressure level, not as a verb. Further, the

specification clearly refers to a "holding/clamping level." Therefore, Applicant submits that the use of "holding/clamping" in claims 3, 12 and 14 is not indefinite. Rather, it would be less clear to use an identifier other than "holding/clamping" to describe the particular pressure level. *See,* e.g., specification, p.6, line 12; p.10, line 5. Accordingly, Applicant respectfully requests that the Examiner withdraw his objection set forth in paragraph 10.

The Examiner has rejected claims 9-13 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 4,705,587 to Smith in view of U.S. Patent No. 6,323,661 to Wildes. Though Applicant respectfully disagrees with the Examiner's position regarding the teachings of Smith and Wildes, Applicant has amended independent claim 9 (from which claims 10-13 depend) to more clearly define the invention. In light of this amendment to claim 9 and the following comments, Applicant respectfully suggests that claims 9-13 are allowable over the cited prior art.

I. Rejection under 35 U.S.C. §103(a)

Independent claim 9, as amended, now sets forth a system for connecting a first and second conductive surface, comprising:

> -- a compressor that applies pressure to an assembly having a first conductive surface and a second conductive surface with an anisotropic material disposed between the first and second conductive surfaces, said pressure causing a bond between the first and second conductive surfaces to be formed via the anisotropic material;
>
> -- means for curing the anisotropic material; and
>
> -- a meter configured to measure an electrical characteristic of the bond and generate a feedback signal corresponding to

the electrical characteristic, *said feedback signal being used to selectively adjust said compressor.*

Applicant respectfully submits that pending claim 9 is allowable over the cited prior art at least because none of the cited prior art references disclose a system as set forth in claim 9, where *the feedback signal is used to selectively adjust the compressor.*

The Examiner rejected original claim 9 under §103 in light of Smith in view of Wildes. Applicant respectfully submits that, while U.S. Patent No. 6,336,990 to Tanaka (another reference cited by the Examiner) discloses bonding two conductors together using an anisotropic conductive adhesive, Smith does *not* disclose such a system. Applicant is unable to determine where Smith suggests the use of an anisotropic conductive adhesive, as indicated by the Examiner. Nonetheless, the Examiner concedes that neither Smith nor Tanaka disclose a meter that measures an electrical characteristic of the bond formed between two conductive surfaces via an anisotropic conductive adhesive. *See,* Office Action, p.8, lines 9-11.

The Examiner relies upon Wildes for the admitted deficiency of Smith and Tanaka, namely, the alleged disclosure of a meter that can measure the electrical resistance of an anisotropic conductive adhesive. *See,* Office Action, p.6, lines 10-11. Applicant respectfully submits that Wildes *does not* disclosure measuring the resistance of a bond created by an anisotropic material. Wildes refers to a system having a flexible printed circuit board ("flex circuits") connected to a transducer having a piezoceramic layer (a "piezoceramic"). *See,* Wildes, col. 1, lines 26-38. The flex circuit is connected to the piezoceramic using ohmic contacts; i.e., exposed metal pads on the flex circuit are laminated, using high pressure and thin layer of *non-conductive epoxy*, to the electroded surface of the piezoceramic layer. *See,* Wildes, col. 1, lines 38-42. If the epoxy is

sufficiently thin, electrical contact is made between corresponding high points on the abutting surfaces of the flex circuits and the piezoceramic. *See,* Wildes, col. 1, lines 42-47. Wildes teaches measuring the resistances at these electrical contacts to determine the quality of the connection. Wildes *does not* disclose measuring the electrical resistance of an anisotropic material, at least because Wildes does not disclose the use of an anisotropic material at all. Rather, the material used to bond the piezoceramic to the flex circuit is a *non-conductive epoxy.* Therefore, none of Smith, Tanaka, or Wildes discloses a meter that measures an electrical characteristic of a bond formed by an anisotropic material. Moreover, none of the cited references even suggest that it may be useful to measure an electrical characteristic of an anisotropic material. Accordingly, the combination of Smith, Tanaka and Wildes does not establish *prima facie* "obviousness" under §103.

Nonetheless, Applicant has amended claim 9 to more clearly specify that the feedback signal generated by the meter is used to selectively adjust the compressor. None of the cited prior art references remotely discloses the concept of selectively adjusting the compressor based upon a feedback signal generated by an electrical characteristic meter. Accordingly, for at least the reasons set forth hereinabove, Applicant respectfully submits that independent claim 9 and dependent claims 10-13 are allowable over the cited prior art.

CONCLUSION

All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance.

Any fees associated with the filing of this paper should be identified in an accompanying transmittal. However, if any additional fees are required in connection with the filing of this paper, permission is given to charge Account No. 18-0013 in the name of Rader, Fishman & Grauer PLLC.

Respectfully submitted,

Date: September 6, 2002

Glenn E. Forbis, Reg. No. 40,610
John P. Guenther, Reg. No. 39,698
Rader, Fishman & Grauer PLLC
39533 Woodward Avenue, Suite 140
Bloomfield Hills, MI 48304
248-594-0600
Customer No. 010291
Attorneys for Applicant

CERTIFICATE OF MAILING

I hereby certify that the enclosed Amendment is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231 on this 6th day of September 2002.

Date: September 6, 2002

Diane R. Lytle

MARKED UP VERSION OF CLAIMS

1. A method for connecting a first and a second conductive surface, comprising the steps of:

placing an anisotropic material between the first and second conductive surfaces to form an assembly;

curing the anisotropic material;

compressing the assembly to form a bond between the first and second conductive surfaces via the anisotropic material; and

monitoring an electrical characteristic of the bond during at least one of the compressing and ~~heating~~curing steps and generating a feedback signal corresponding to the electrical characteristic.

2. The method of claim 1, further comprising the step of adjusting an amount of pressure applied during the compressing step in response to the feedback signal.

7. The method of claim 6, wherein ~~the temperature is kept constant during~~ the curing step includes maintaining the anisotropic material at an approximately constant elevated temperature.

9. A system for connecting a first and second conductive surface, comprising:

a compressor that applies pressure to an assembly having a first conductive surface and a second conductive surface with an anisotropic material disposed between the first and second conductive surfaces~~;~~, said pressure causing a bond between the first and second conductive surfaces to be formed via the anisotropic material;

means for curing the anisotropic material; and

~~a compressor that compresses the assembly to form a bond between the first and second conductive surfaces via the anisotropic material; and~~

a meter ~~for measuring~~ configured to measure an electrical characteristic of the bond and generate~~ing~~ a feedback signal corresponding to the electrical characteristic~~.~~, said feedback signal being used to selectively adjust said compressor.